

**AMENDMENTS TO THE SPECIFICATION**

**Please amend the paragraph numbered [0009] on page 5 as follows:**

The present invention provides a method for producing fullerenes, wherein the gas flow at an entrance of the first filter preferably have a temperature falling within a range of between more than 600 to and 900 °C, and more preferably within a range of 700 to 800 °C. As a result, the fullerenes in the gas flow are evaporated to flow through the first filter. However, gas flow having temperatures of greater than 900 °C requires the use of heat-resistant peripherals such as heat-resistant piping passages in addition to the heat-resistant filtering member. This results in higher equipment costs.

**Please amend the paragraph numbered [0014] on pages 6-7 as follows:**

Fullerene-manufacturing equipment 10 embodying a method for producing fullerenes according to an embodiment of the present invention is now described. As illustrated in Fig. 1, the fullerene-manufacturing equipment 10 includes a reactor 11, a first temperature-regulating unit 12, a first filter 13, a second temperature-regulating unit 14, and a second filter 15. The reactor 11 is operable to produce fullerenes in accordance with a combustion method. The first temperature-regulating unit 12 is operable to regulate the temperature of a high-temperature gas flow containing the fullerenes and soot (hereinafter sometimes simply called “exhaust gas”) generated in the reactor 11 within a range of greater between more than 600 to and 900 °C. The first filter 13 is operable to separate the soot from the exhaust gas that has just flowed through the first temperature-regulating unit 12. The soot is in the form of a solid or rather powder when the exhaust gas is at the temperatures of 600 to 900 °C. The second temperature-regulating unit 14 is

Amendment Under 37 C.F.R. §1.111  
Application No. 10/735,824

operable to further lower the temperature of the exhaust gas that has just flowed through the first filter 13 to a range of 300 to 600 °C. The second filter 15 is operable to collect the fullerenes from the exhaust gas that has just passed through the second temperature-regulating unit 14. The following discusses details of each of the above components.

**Please amend the paragraph numbered [0018] on page 9 as follows:**

The first temperature-regulating unit 12 cools down the exhaust gas from the reactor 11 to the temperatures within a range of, e.g., ~~greater between more than 600 to and 900 °C~~ (more preferably within a range of 600 to 700 °C). The temperatures can be regulated in accordance with an adjustment in length of the piping passage 18 and adjustments in supply amount and temperature of coolant (e.g., water).

**Please amend the paragraph numbered [0022] on page 11 as follows:**

The second temperature-regulating unit 14 is provided at the gas exit 25 to span between the first filter 13 and the second filter 15. The second temperature-regulating unit 14 is substantially identical in construction to the first temperature-regulating unit 12, and includes a piping passage 30 and a coolant pipe 31 that extends around the exterior of the piping passage 30. The second temperature-regulating unit 14 lowers the temperature (in the range of ~~greater between more than 600 to and 900 °C~~) of the exhaust gas containing the fullerenes from the first filter 13 to a range of 300 to 600 °C (more preferably a range of 300 to 400 °C). As a result, the polycyclic aromatic compounds contained in the exhaust gas are retained in a gaseous state, while the fullerenes are solidified to form powder.

Amendment Under 37 C.F.R. §1.111  
Application No. 10/735,824

**Please amend the first full paragraph on page 16 (lines 8-17) as follows:**

The gas flow containing the fullerenes and soot (the exhaust gas) provided by the first process usually has temperatures ranging from 1500 to 2000 °C, and is too high in temperature to be fed through the first filter 13. The first temperature-regulating unit 12 lowers the temperature of the gas flow containing the fullerenes and soot (the exhaust gas) to temperature in a range of between more than 600 ~~to and~~ 900 °C. At such predetermined temperatures, the fullerenes are held in a gaseous state. The cooled gas flow containing the fullerenes and soot (the exhaust gas) is allowed to flow through the first filter 13. As a result, the soot is collected from the exhaust gas. The rest of the exhaust gas is a gas that includes the fullerenes and a small amount of monocyclic or polycyclic aromatic compounds.